IN THE CLAIMS

Please amend the claims as follows:

1.   (Withdrawn) A microprocessor equipped with a power control function, comprising:

a power control permission setting unit, which previously sets information as to whether or not a power control operation is carried out; and

a power control output controller, which finally controls an output of a power control signal in accordance with the information set in the power control permission setting unit when a power control instruction is executed, the power control instruction separately designating power control operations with respect to operation resources of the microprocessor.

2.   (Withdrawn) The microprocessor as claimed in claim 1, further comprising:

a power control register, which stores information as to operation resources whose power control operations should be carried out, which are designated by the power control instruction;

a power control circuit, which outputs power control signals for controlling electric power with respect to the respective operation resources based on the information stored in the power control register; and

a gate circuit, which gates the respective power control signals in accordance with the information set to the power control permission setting unit.

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3. (Withdrawn) A microprocessor equipped with a power control function, comprising:

a processor state judging unit, which holds information as to whether or not a power control operation is carried out, which has been previously set every program ID applied to each of instruction programs, and which judges as to whether or not a program ID of an instruction program under execution corresponds to the program ID which has been set so as to perform the power control operation; and

a power control output controller, which finally controls an output of a power control signal in accordance with a judgment result of the processor state judging unit as to the instruction program under execution when a power control instruction is executed, the power control instruction separately designating power control operations with respect to operation resources of the microprocessor.

4. (Withdrawn) The microprocessor as claimed in claim 3, further comprising:

a power control register, which stores information as to operation resources whose power control operations should be carried out, which are designated by the power control instruction;

a power control circuit, which outputs power control signals for controlling electric power with respect to the respective operation resources based upon the information stored in said power control register; and

a gate circuit, which gates the respective power control signals in accordance with the judgement result of the processor state judging unit.

5.   (Currently Amended) A computer-readable instruction converting apparatus having instructions stored thereon for optimizing an instruction program so as to suitably execute the optimized instruction program by a predetermined microprocessor, comprising:

a power control manager, which extracts power control management information by referring to <u>a complier directive indicating a kind of operation resource</u> a comment sentence which is written in the instruction program and is not executed by the predetermined microprocessor;

a power control information analyzer, which detect an operation resource based upon the power control management information extracted by the power control manager, the operation resource being not actuated for an instruction section having a predetermined length when the predetermined microprocessor is operated; and

a power control instruction applier, which inserts or replaces an instruction related to a power control operation in the instruction program based upon the detected result of the power control information analyzer,

<u>wherein a detection by the power control information analyzer is executed only for an operation resource specified by the complier directive.</u>

6.   (Previously Presented) The computer-readable instruction converting apparatus as claimed in claim 5, wherein:

the power control management information contains information for designating said predetermined length of the instruction section; and

the power control information analyzer changes the predetermined length of the instruction section based upon the power control management information.

7.   (Currently Amended) The computer-readable instruction converting apparatus as claimed in claim 5, further comprising:

a first ~~instruction-wise operation resource~~ table storing unit, which stores information as to whether or not each of the operation resources of the predetermined microprocessor is actuated every instruction;

wherein the power control information analyzer detects such an operation resource which is not actuated for the instruction section having the predetermined length when the predetermined microprocessor is operated based upon the information stored in the instruction-independent operation resource table storage unit.

8.   (Currently Amended) A computer-readable instruction converting apparatus having instructions stored thereon for optimizing an instruction program so as to suitably execute the optimized instruction program by a predetermined microprocessor, comprising:

a power control manager, which extracts power control management information by referring to a complier directive indicating a kind of operation resources which is written in the instruction program and is not executed by the predetermined microprocessor;

a power control analyzer, which detects an operation resource which is not actuated for an instruction section having a predetermined length when the predetermined microprocessor is operated; and

a power control instruction applier, which inserts or replaces an instruction related to a power control operation in the instruction program based upon the detection result of the power control information analyzer;

wherein the power control information analyzer comprises,

a instruction reassembling unit, which reassembles the instruction program in such a manner that the instruction section detected during power control analysis is made long, during which an actuation of an operation resource can be stopped,

wherein a detection by the power control information analyzer is executed only for an operation resource specified by the complier directive.

9. (Previously Presented) The computer-readable instruction converting apparatus as claimed in claim 8, wherein:

the instruction reassembling unit corresponds to instruction rearranging unit which rearranges instructions while maintaining an instruction dependent relationship established in the instruction program.

10. (Previously Presented) The computer-readable instruction converting apparatus as claimed in claim 8, wherein:

the instruction reassembling unit corresponds to instruction replacing unit which replaces one instruction contained in the instruction program by another instruction having the same process result as that of the one instruction.

11. (Currently Amended) A computer-implemented instruction converting method for optimizing an instruction program so as to suitably execute the optimized instruction program by a predetermined microprocessor, comprising:

a power control managing step for extracting power control management information by referring to a complier directive indicating a kind of operation resources comment sentence which is written in the instruction program and is not executed by the predetermined microprocessor;

a power control information analyzing step for detecting an operation resource based

upon the power control management information extracted in the power control managing step,

the operation resource being not actuated for an instruction section having a predetermined

length when the predetermined microprocessor is operated; and

a power control instruction applying step for inserting or replacing an instruction related

to a power control operation in the instruction program based upon the detected result of the

power control information analyzing step,

wherein a detection by the power control information analyzing step is executed only for

an operation resource specified by the complier directive.

12.   (Previously Presented) The computer-implemented instruction converting

method as claimed in claim 11 wherein:

the power control management information contains information for designating said

predetermined length of the instruction section; and the power control information analyzing step

changes the predetermined length of the instruction section based upon the power control

management information.

13.   (Currently Amended) The computer-implemented instruction converting method

as claimed in claim 11, wherein:

the power control information analyzing step refers to a first an instruction-wise

operation resource table which stores thereinto information as to whether or not each of the

operation resources of the predetermined microprocessor is actuated by every instruction in order

to detect such an operation resource which is not actuated for the instruction section having the

predetermined length when said predetermined microprocessor is operated.

14.   (Currently Amended) A computer-implemented instruction converting method

for optimizing an instruction program so as to suitably execute the optimized instruction program

by a predetermined microprocessor, comprising:

a power control managing step for extracting power control management information by

referring to a complier directive indicating a kind of operation resources which is written in the

instruction program and is not executed by the predetermined microprocessor;

a power control analyzing step for detecting an operation resource which is not actuated

for an instruction section having a predetermined length when said predetermined

microprocessor is operated; and

a power control instruction applying step for inserting or replacing an instruction related

to a power control operation in the instruction program based upon the detection result of the

power control information analyzing step; wherein:

the power control information analyzing step is comprised of:

an instruction reassembling step for reassembling the instruction program in such a

manner that the instruction section detected during power control analysis is made long, during

which an actuation of an operation resource can be stopped,

wherein a detection by the power control information analyzing step is executed only for

an operation resource specified by the complier directive.

15.   (Previously Presented) The computer-implemented instruction converting

method as claimed in claim 14, wherein:

the instruction reassembling step rearranges instructions while maintaining an

instruction dependent relationship established in the instruction program.

16.   (Previously Presented) The computer-implemented instruction converting method as claimed in claim 14, wherein:

the instruction reassembling step replaces one instruction contained in the instruction program by another instruction having the same process result as that of the one instruction.

17 – 18. (Canceled)

19.   (Previously Presented) The instruction converting method as claimed in claim 11, wherein

the power control management information contains information for designating a portion in the instruction program where the power control information analyzing step is performed, and

the operation resource being not actuated for an instruction section having the predetermined length is not detected if the power control management information indicates a instruction section analyzed is not the portion where the power control information analyzing step is performed.

20.   (Canceled)